

[007] To obtain the most uniform possible driving comfort in the different transmissions of a series, it has already been proposed in DE-C 34 36 190 to use in the electronic control of the transmission adaptive functions. This is done by means of a device for electronic control wherein the electrohydraulically actuatable friction elements in the transmission produce the change between the different reduction steps and an actual value that characterizes the shifting operation, specially the grinding time, shifting time, or the rotational speed gradient during the grinding time, is compared with a stored nominal value, a correction value being stored when a presettable divergence is exceeded. This correction value has for the subsequent shifting operations a correcting effect in the sense of the adaptive control upon the formation of a control valve for the friction elements, specially the hydraulic pressure. This device is specially adequate for automatic transmissions which as consequence of a defect have to be changed in a service workshop, a since otherwise the adaptive data stored in the electronic transmission control no longer coincide with the actual mechanical part ~~[[of]]~~ of the automatic transmission. ◆

[018] Therefore, as shown in Fig. 1, the invention provides that the automatic transmission 1 be tested upon a testing stand 10 with a driving machine 3 of less power and with a torque ~~transmitting~~ measuring hub 5 mounted to a fixed part of a test bench 12 instead of to the driven machine. ◆

Accordingly, this test of the shifting elements existing in the transmission such as brakes and clutches is conducted while the output 7 is stationary and at a low input 9 rotational speed which is precisely sufficient to supply the pressure setting elements in the transmission with hydraulic pressure and ensure the operation thereof. According to the invention the shifting element to be tested is caused to slip via the pressure-setting element and then closed again. This procedure takes no more than two seconds and spares the separate ventilation of the hydraulic components prior to performing the test.

[023] It has been found, by way of example, that in the testing of a five-step automatic transmission a saving of time of 80% was found during the testing with the inventive method as shown in Fig. 2. The method for testing the function of an electrohydraulically controlled automatic transmission upon a testing stand 10 by simulation of a vehicle operation at step 1 wherein the input shaft of the transmission is connected with a driving machine which produces preset rotational speeds and load ratios at step 2, characterized in that the output shaft 7 of the transmission is connected at step 3 with a stationary torque transmitting measuring hub 5 which is mounted to a fixed part of the test bench 12 and that shifting elements existing in the transmission are tested when the output shaft 7 is blocked at step 4 with an input rotational speed which exactly suffices to supply with hydraulic pressure the pressure-setting elements for the shifting elements, a characteristic quantity being determined and indicated or stored. ♦